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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,539	10/16/2003	Chung-hum Baik	45712	3483
7590	11/02/2005		EXAMINER	
Roylance Abrams Berdo & Goodman 6th Floor 1300 19th Street Washington, DC 20036			CAO, ALLEN T	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/686,539	BAIK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Allen T. Cao	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 28 September 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 4-29 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 2 is/are rejected.
- 7) Claim(s) 3 is/are objected to.
- 8) Claim(s) 1-29 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/19/04; 3/24/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2652

1. Applicant's election with traverse of Group I, claims 1-3 in the reply filed on 9/28/05 is acknowledged. The traversal is on the ground(s) that "Applicants note that the non-elected claims 4-16 all depend, directly or indirectly, from claim 1. Therefore, the Restriction Requirement with regard to claims 4-16 should be withdrawn upon allowance of claim 1, and that these claims will be entitled to examination or immediately allowed at that time. Finally, Applicants submit that the subject matter of the claims is related such that examination of the entire application can be made without serious burden as stated in MPEP 9803." This is not found persuasive because the inventions are related as combination and sub-combination (see the previous Office Action).

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 4-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected claims, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 9/1/05.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over CN (1034084A) in view of Joannes Van Thuiji et al (US. 5,019,926).

CN discloses a head drum assembly for a tape recorder (page 6, line 13 to page 9, line 7; figure 1) having a rotary drum 4 supporting a magnetic head thereon, and being rotatably disposed on a shaft 1; a stationary drum 2 secured to the shaft to be positioned vertically on lower and upper parts of the rotary drum with the rotary drum being interposed there-between; a sub circuit board, a stationary transformer (figure 1) and a rotary transformer 27, each being disposed between the stationary drum and the rotary drum for signal transmission with the magnetic head; a motor stator 25 mounted on the stationary drum; and a motor rotor (22, 23) disposed in the rotary drum to oppose the motor stator and rotate, all as set forth in claim 1.

Joannes does not disclose a drum cover is formed of a conductive material and press-fitted on the shaft, and a connecting member is disposed on the conductive body of the drum cover for supporting and electrically connecting the sub circuit board with the conductive body.

Joannes discloses a head drum assembly of a rotary head (column 1, line 63 to column 2, line 7 and column 3, lines 1-64; figure 1); a rotary transformer 8; a sub circuit board 16; a drum cover (14 and 15) made of a conductive material, an earth spring 12 is provided on the conductive body of the drum cover for connecting the sub-circuit board of the rotary transformer and the plate of the drum cover with the ground, as recited in claim 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the head drum assembly of CN with the head drum

cover and the connecting member as set forth, supra as taught by Joannes to reduce parts in order to reduce manufacturing steps, thus reduce cost.

Regarding claim 2, CN as modified by Joannes do not disclose that the drum cover is formed of the same material as that of the rotary drum and the stationary drum.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the drum cover, the rotary drum and the stationary drum of the head drum assembly of CN as modified by Joannes with same material through an obvious lab routine experimentation in order to stabilize the thermal occurred to the drums, thus improve liability head drum. Additionally, it has been held to be within the general skill of a worker in the art to select a known material having different chemical bonding structures on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

4. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither discloses nor suggests the combination of all the limitations as set forth in claim 1 and further limitations as "the connecting member is a screw fastened to coupling holes which are respectively formed in the drum cover and in the sub circuit board to correspond to each other" as further recited in claim 3.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T. Cao whose telephone number is (571) 272-7569. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Cao  
Primary Examiner

AC  
October 31, 2005